



PUBLIC HEALTH FACT SHEET

Sarin

The Agent

Sarin is a clear, colorless, tasteless and odorless liquid. It can also evaporate into a vapor (gas) and spread into the environment. Sarin is also known as GB.

Sarin is not found naturally in the environment. It is a nerve agent developed for use in chemical warfare. Nerve agents are similar to certain kinds of insect killers, but much more powerful. Sarin was developed in 1938 in Germany as a pesticide. Sarin was used in two terrorist attacks in Japan in 1994 and 1995.

Nerve agents affect the body's "off switch" for glands and muscles. Without an "off switch," the glands and muscles are constantly being stimulated. The muscles may get so tired that breathing may stop.

If sarin were released into the air, people could be exposed through skin contact, eye contact or by breathing air that contains sarin. If sarin were released in water, people could be exposed by drinking the water or getting it on their skin. If food were contaminated with sarin, people would be exposed by eating the food. Clothing contaminated with sarin vapor can release the nerve agent for about 30 minutes, which can lead to the exposure of other people.

Symptoms

When a person is exposed to sarin gas, symptoms will appear within a few seconds after exposure. When a person is exposed to liquid sarin, symptoms will appear within a few minutes to 18 hours after exposure.

People may not know that they were exposed because sarin has no odor. People exposed to a low or moderate dose of sarin by breathing contaminated air, eating contaminated food, drinking contaminated water, or touching contaminated surfaces may experience some or all of the following symptoms within seconds to hours of exposure:

runny nose, watery eyes, small, pinpoint pupils, eye pain, blurred vision, drooling, excessive sweating, cough, chest tightness, rapid breathing, confusion, drowsiness, weakness, headache, nausea, vomiting and/or abdominal pain, diarrhea, increased urination, slow or fast heart rate, low or high blood pressure.

Even a small drop of sarin on the skin can cause sweating and muscle twitching where sarin touched the skin. Exposure to large doses of sarin in any form may result in the following harmful health effects: loss of consciousness, convulsions, paralysis and respiratory failure possibly leading to death.

Treatment

Treatment consists of removing sarin from the body as soon as possible and providing supportive medical care in a hospital setting. Antidotes are available for sarin. They are most effective if given as soon as possible after exposure.

Reducing the Risk

The best thing to do is avoid exposure, if possible. Once a person has been exposed, they can recover if they seek medical attention and get the antidotes right away.

If you think you may have been exposed to sarin, quickly leave the area where the sarin was released and get to fresh air. This is highly effective in reducing the possibility of death from exposure to sarin vapor.

If the sarin was released indoors, get out of the building. If the sarin was released outdoors, move away from the release area. Go to the highest ground possible. Sarin is heavier than air and will sink to low-lying areas.

If a person thinks they have been exposed to sarin, they should remove their clothing, rapidly wash their entire body with soap and water, and get medical care as quickly as possible.

Quickly take off clothing that has liquid sarin on it. Clothing that has to be pulled over the head should be cut off instead. If possible seal the clothing in a plastic bag. Place the sealed bag inside another plastic bag. Removing and sealing the clothing will help protect people from any chemicals that might be on their clothes.

If clothes were placed in plastic bags, call the local or state health department or tell emergency personnel when they get there. Do not handle the plastic bags. If you help other people remove their clothes, avoid touching contaminated areas of clothing. Remove the clothing as quickly as possible.

As quickly as possible, wash any liquid sarin from the skin with large amounts of soap and water. Rinse the eyes with plain water for 10 to 15 minutes if they are burning, or if vision is blurred. If sarin has been swallowed, do not induce vomiting or give fluids to drink. Seek medical attention immediately. Dial 911 and explain what has happened.

Sarin and Bioterrorism

According to the Centers for Disease Control and Prevention (CDC), sarin could be used as a biological weapon, resulting in sickness and death.

For More Information Contact

- Your healthcare provider
- Your local department of health
- The New Jersey Dept. of Health and Senior Services
Communicable Disease Service at (609) 588-7500
- You can also visit the following websites:
The New Jersey Department of Health and Senior Services website at www.nj.gov/health
The CDC website at <http://www.bt.cdc.gov/agent/sarin>.